Page 1

Item ID:

D205-634-041

Accept

Setup Start

Stop



Revision ID:

Item Name: Replacement Skidtube

Required Date: 3/24/2010

3/9/2010

Start Qty: 1.00 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Start Date:

Approvals:

QC:

Process Plan: MF

Date: 10-3-8 Tooling:

Date:

0.00

Date:

Run

Start



SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID Operation

Description

Set Up/ **Run Hours** Draw Number Draw Rev.

Plan

Code Qty

Accept

Reject Reject Qty Number

Insp. Stamp

Draw Nbr

Revision Nbr

D2580

Rev D

100

DOCUMENT CONTROL

Memo

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

CNC Bend 1 CNC Delta 100 Bender BENDING MACHINE - SKIDTUBES

Memo

0.00

0.00

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

rospace Li	td						<u> </u>
		WO	RK ORDER CHANG	ES			
STEP	PRO	OCEDURE CHAN	IGE	Ву	Date (Approval Chief Eng / Prod Mgr	Approva QČ Inspecto
:	PAR #:	Fault Categ	jory:	_ NCR: Yes	No DQA:	Date: _	
Reso	olution:	Disposition):	QA: N/C (Closed:	Date: _	
NCR:		WORK ORDE	R NON-CONFORM	ANCE (NC	R)		
	Description of NC	Description of NC Corrective Act		VARITICATION			Approva
STEP	Section A	Initial Chief Eng	Action Description Chief Eng		& Section		QC Inspect
	·						
							į
	STEP STEP	PAR #:	STEP PROCEDURE CHAN PROCEDURE CHAN PAR #: Fault Category Resolution: Disposition WORK ORDE STEP Description of NC Section A Initial	WORK ORDER CHANG STEP PROCEDURE CHANGE Disposition: WORK ORDER CHANGE Disposition: WORK ORDER NON-CONFORM STEP Description of NC Section A Initial Action Description	WORK ORDER CHANGES STEP PROCEDURE CHANGE By PAR #: Fault Category: NCR: Yes Resolution: Disposition: QA: N/C (WORK ORDER NON-CONFORMANCE (NC STEP Description of NC Section A Corrective Action Section B Initial Action Description Sign	WORK ORDER CHANGES STEP PROCEDURE CHANGE By Date C PAR #: Fault Category: NCR: Yes No DQA: Resolution: Disposition: QA: N/C Closed: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC	WORK ORDER CHANGES STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr D:PAR #:Fault Category:NCR: Yes No DQA:Date: Resolution:Disposition:QA: N/C Closed:Date: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC

'Monday,' March 08, 2010 10:23:18 AM

Page 2

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date: 3/9/2010

Required Date: 3/24/2010

Start Qty: 1.00

Operation

Description

Req'd Qty: 1.00

Cust Item ID: Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date: _____

Tooling:

Date: ____

Start Run

Stop

QC:

Date:

SPC (Y/N):

Set Up/

Run Hours

Date:

Draw

Rev.

Plan

Code

Accept

Qty

Reject Qty

Reject

Number Stamp

Work Center ID 120

Skidtubes

Skidtubes

Sequence ID/

Memo

0.00

0.00

1- Deburr ends

2- C'sink holes as per dwg without cutting fluid

3- Prepare tube for welding, remove alodine as required.

4- Scribe batch number insied aft end of tube.

130

Quality Control

QC5- Inspect part completeness to step on W/O

wlordy

Memo

0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		70.					

Part No:	PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
	Resolution:	Disposition:	QA: N/C Closed:	Date:

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC	Corrective Action Section B		Verification	Approval	Approval			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector		
		•								

Required Date: 3/24/2010

Page 3

'Monday,' March 08, 2010 10:23:18 AM

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

3/9/2010

Start Oty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling:

0.00

0.00

SPC (Y/N):

Date:

Date:

Run

Start Stop

Sequence ID/ **Work Center ID**

140

Skidtubes Skidtubes

Description

Operation

Set Up/ **Run Hours**

Draw Number Draw Rev.

Plan Code

Accept Qty

Reject Qty

Reject Insp. Number

Stamp

Memo

1-Weld step D2576 as per Dwg. D2580 and QSL004
A/RUUU Aluminum Rod

2-Prep per QSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI

For D2579 spacers, weld one side, pass 3/8" drill weld other side, pass 3/8" drill A/RUUG Aluminum Rod BE 10/03/

3-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web. Deburr

5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Deburr holes

6-Drill pilot holes for aft cap using DT 8215Open holes to 0.208". Deburr

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

10-3-12

W/O:			WORK ORDER (CHANGES				····
DATE	STEP		PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector
Part No):	PAR #:	Fault Category:	NCR: Y	es No DC	A:	Date: _	
	B	Resolution:	Disposition:	ΟΔ: N/C	, Closed.		Date:	

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC		Corrective Action Section B		Verification	Annuoval	Approval QC Inspector		
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng			
n ==:				, a - ,						
	+									

Work	Or	der	ID	56758

'Monday, March 08, 2010 10:23:18 AM



Page 4

Item ID:

D205-634-041

Accept



Setup Start



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

3/9/2010

Start Qty: 1.00 Req'd Qty: 1.00

Cust Item ID: Customer:

Draw

Reference:

Approvals:

Process Plan:

Date: Date:

SPC (Y/N):

Tooling: Date:

Date:

Run

Start

Stop



Sequence ID/

Required Date: 3/24/2010

Work Center ID

150

Operation Description

OC10- Inspect visual per OSI004- ground welds

Memo

Set Up/ **Run Hours**

Number

Plan Draw Rev. Code

Reject Accept Qty Qty

Reject Number

Insp. Stamp

Quality Control

160

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

170

HandFinish

Pressure Wash per QSI005 4.3

Memo

0.00

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd cap out of solution.

W/O:

W/O:			WORK ORDER	CHANGES				
DATE	STEP	PRO	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
								•
		• • • • • • • • • • • • • • • • • • • •						
Part No):	PAR #:	Fault Category:	NCR: Ye	s No DQ	A:	_ Date: _	

	Resolution:		Disposition	on:	QA: N/C Clos	sed:	Date: _	
NCR:	:	\	WORK ORD	DER NON-CONFORMAN	CE (NCR)			
		Description of NC		Corrective Action Section	 В	Verification	Annroval	Annroval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector
						}		
				•				
				•				
	1							
NOTE: D	ate & initi	al all entries						

Work Order ID 56758

Page 5

'Monday, March 08, 2010 10:23:18 AM

Item ID:

D205-634-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Required Date: 3/24/2010

Replacement Skidtube

Start Date:

3/9/2010

Start Qty: 1.00

Req'd Qty: 1.00

Cust Item ID: Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling:

0.00

SPC (Y/N):

Date:

Plan

Code

Stop

Run



Insp.

Stamp

Reject

Number

Sequence ID/ Work Center ID

180



Powdercoat

Powder Coating

Operation Description

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

M(13170

Memo

START TIME: OVEN TEMPERATURE:

FINISH TIME:

Set Up/ **Run Hours**

10/03/25

Date:

Draw

Rev.

Accept

Qty

Reject

Qty

190

Quality Control

QC3- Inspect Part Finish

Memo

10-3-24

Dait Aci	Capace	Liu								,
W/O:			W	ORK ORDER CHAI	NGES		-			<u>.</u>
DATE	STEP	PRO	CEDURE CH	IANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approvaļ QC Inspector
		•								
Part No	:	PAR #:	Fault Ca	tegory:	NC	R: Yes	No DQ	4:	Date:	
		esolution:								
NCR:		\	WORK OR	DER NON-CONFOR	MANCE	(NCF	R)			
DATE	STEP	Description of NC			Section B		Verific	cation	Approval	Approval
DATE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	on	Sign 8 Date	Secti	on C	Chief Eng	QC Inspector
						ł	į			
					 					
									1	

Page 6

'Monday, March 08, 2010 10:23:18 AM Item ID: D205-634-041 Accept Setup Start **Revision ID:** Stop Replacement Skidtube Item Name: Start Date: 3/9/2010 Start Qty: 1.00 **Cust Item ID:** Required Date: 3/24/2010 Reg'd Oty: 1.00 **Customer:** Reference: Run Start Approvals: **Process Plan:** Date: Tooling: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ **Operation** Set Up/ Draw Draw Plan Reject Accept Reject Insp. Work Center ID Description Number Rev. Qty **Run Hours** Code **Qty** Number Stamp 200 0.00 HandFinish 0.00 Memo Hand Finishing 1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates Bf 10-3-24. D. A/R □□□ Sikaflex-291 Sikaflex expire date: 2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580 3-Inspect for foreign object per OSI 024 4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive A/R 3 110 Sikaflex-291 1:11234503 Sikaflex expire date: 10/08

5-Wing Walk as per Dwg D2580 and OSI 005 4.4

Batch: M 113462

bk 10-3-29 Q

W/O:			WORK ORDER (CHANGES				
DATE	STEP	1	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
								-
Part No):	PAR #:	Fault Category:	NCR: Yes	s No DQ	A:	Date: _	
	R	esolution:	Disposition:	QA: N/C	Closed:		Date: _	

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
	T	Description of NC		Corrective Action Section B		Verification	Annewal	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector
								7

Work Order ID 56758

'Monday, March 08, 2010 10:23:18 AM



Page 7

Item ID:

D205-634-041

Accept

Setup Start



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

3/9/2010

QC:

Start Oty: 1.00

Required Date: 3/24/2010 Req'd Qty: 1.00



Date: ____

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date: Date: Run Start

Stop

Stop



Sequence ID/ **Work Center ID**

210

OC

Quality Control

Operation Description

QC5- Inspect part completeness to step on W/O

Foreign objects per OSI 024

Set Up/ **Run Hours**

SPC (Y/N):

0.00

Draw Number

Draw Plan Rev. Code

Accept Oty

Reject Qty

Reject Insp.

// lofe/19 0

Number Stamp

0.00

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for

220

Packaging

Packaging

Packaging

Memo

0.00

0.00

Identify and pack for shipping as per PPPD205-634-041

Location

230

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10/04/15 MF 10-4-15

- a	oopaoo	F-104							
W/O:			W	ORK ORDER CHANG	GES				
DATE	STEP	PRO	PROCEDURE CHANGE				Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No: PAR #:		PAR #:	Fault Cate	gory:	/: NCR: Yes No DQA: D				
Resolution:									
NCR:			WORK ORD	ER NON-CONFORM	ANCE (NCF	R)			
DATE	STEP	Description of NC			tion B	Verific		Approval	Approval
		Section A	Chief Eng	Action Description Chief Eng	Date		on C	Chief Eng	QC Inspector
		•							

Picklist Print

Monday, March 08, 2010 10:23:17 AM

Work Order ID: 56758

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

D2580-1

Parent Item:

IPP Rev:N∷02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Manufactured

Manufactured

110

Each

6.0000

1.0000

Start Date: 3/9/2010

Start Qty: 1.00

205 Skidtube bent detail

	Warehouse		Loc Qty	Loc Code		
	Location					
	Main Warehouse					
	LG		6			
	54541		2			
	56121		2			
	56122		2			 140/3/8
No	-	140	Each	130.0000	1.0000	· · - · ·

Loc Code

D2576-3

Step (maching detail)

Warehouse	Loc Qty
Location	
Main Warehouse	
ST	130
46661	83
52215	47

______BE 10/03/11

Required Date: 3/24/2010

Required Qty: 1.00

W/O:		WORK ORDER CHANGES									
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
Part No	:	PAR #: Fault Category:	NCR: Yes	No DQ	A:	Date: _					

Disposition: _____ QA: N/C Closed: ____ Date: ____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC		Corrective Action Section B				Approval		
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	QC Inspector		
=										

NOTE: Date & initial all entries

Resolution:

Required Date: 3/24/2010

Required Qty: 1.00

Monday, March 08, 2010 10:23:17 AM

Work Order ID: 56758

D205-634-041

Parent Item Name:

Parent Item:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30UKJ IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09

SS Wearplates & Gaskets JLM

D2579

Manufactured

140

Each

147.0000 20.0000

Start Date: 3/9/2010

Start Oty: 1.00

Crossbolt Spacer

Warehouse	Loc Oty	Loc Code	
Location			
Main Warehouse			
LG	25		
51525	4		
53780	3		
54543	18		
Main Warehouse			
ST	122		
43988	4		
46434	4		
46956	2		
47797	9		
48272	2		
51314	71		
51315	30		

B 56715

BE 10/03/11

- a	·oopaoo											
W/O:			WORK ORDER CHANGES									
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
Part No: PAR #:		PAR #:	Fault Category: NO			NCR: Yes No DQA: Date:						
Resolution:			Dispositio	n:	QA: N/C	Closed:		Date: _				
NCR:			WORK ORDI	R NON-CONFORM	ANCE (NC	R)						
DATE	STEP	Description of NC	Corrective Action Section			Verifi	cation	Approval	Approval			
DAIL	JILI	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Dat		ion C	Chief Eng	QC Inspector			
<u> </u>												
	,											

Monday, March 08, 2010 10:23:17 AM

Work Order ID: 56758

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Date: 3/9/2010

Start Qty: 1.00

Required Date: 3/24/2010

Required Qty: 1.00

D2855

Manufactured

No

200

Each

142.0000 1.0000



(Can			

1	<u>Warehouse</u>	<u>Lo</u>	c Qty	Loc Code	
	Location				
1	Main Warehouse				
	ST026		142		
	50513		1		
	50770		1		
	51539 53791 / /		37		
	53791		103		
No		200	Each	1,405.000	2.0000

AN3-5A

Purchased



Warehouse Loc Qty Loc Code Location Main Warehouse ST 1405 188

1217

____BR 10-3-24

	Johnson									
W/O:			WC	RK ORDER CHANG	iES					· ·
DATE	STEP	PRO	PROCEDURE CHANGE				Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No: PAR #: _		PAR #:	Fault Cate	gory:	NCR: Yes No DQA: Date:					
	Re	esolution:	Disposition	n:	_ QA: N/C	Clos	ed:		Date: _	
NCR:			WORK ORD	ER NON-CONFORM	ANCE (N	CR)				
DATE	STEP	Description of NC	Corrective Action Section E					cation Approval		Approval
DAIL	SILF	Section A	Initial Chief Eng	Action Description Chief Eng		n & ate	Section		Chief Eng	QC Inspector

Required Date: 3/24/2010

Required Qty: 1.00

= Bk 10-3-24

Monday, March 08, 2010 10:23:17 AM

Work Order ID: 56758

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

SS Wearplates & Gaskets JLM IPP Rev:P 07-07-09

AN960JD10L

Purchased

No

200

Each

3,113.000 2.0000

Start Date: 3/9/2010

Start Qty: 1.00

Washer

Warehouse	<u>Lo</u>	c Oty	Loc Code	
Location				
Main Warehouse				
ST		3113		
101291		16		
105793		49		
110985		3048		
•	200	Each	986.0000	50.0000

Loc Oty

759

ALS7-1032-130

Purchased

AL54-1032-130

No

Warehouse

113238



Insert

war chouse	Edt Oty	<u> Doc Couc</u>	
Location			
Main Warehouse ST // 0 ろり	986		50. BR.10-3-24
108606	52		
111529	130		
111779	34		
112772	11		

Loc Code

W/O:			WORK ORDER CHANGES								
DATE	STEP PRO		PRO	OCEDURE CHANGE		Ву	Date Qty Ci		Approval Chief Eng / Prod Mgr	Approval QC Inspector	
										i i	
			···								
										Í	
Part No):		PAR #:	Fault Category:	NCR	: Yes	No DQ	A:	Date:		
	F	Resolution:		Disposition:	QA:	N/C C	Closed:		Date: _		

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
	T	Description of NC		Corrective Action Section B			A			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector		
		·								
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										

Picklist Print

Page 5 Monday, March 08, 2010 10:23:17 AM

Work Order ID: 56758

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Purchased

No

200

Each

1,499.000 50.0000

Start Date: 3/9/2010

Start Qty: 1.00

Required Date: 3/24/2010

Required Qty: 1.00

AN3C4A

Warehouse Location	Loc Oty	Loc Code	
Main Warehouse			
ST	1499		
112314	13		
112720	12		
112724	3		
112829	1		
112991	2		
113121	64		
113226	344		
113644	12		
113749	48		- bill to
114103	500		50. DK 10-3-24
114108	500		

Dart Ae	rospace	e Lta									
W/O:			WORK ORDER CHANGES								
DATE	STEP		PROCEDURE CHANGE			Ву	By Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector	
						1					
Part No:		PAR #:	Fault Category:	NCR: Yes No DQA: Date:							
	R	lesolution:		Disposition:	QA:	N/C C	Closed:		Date: _		
NCR:			WORK ORDER NON-CONFORMANCE (NCR)								

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
	T			Corrective Action Section B	Verification	Approval	Approval			
DATE	STEP		Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector		
	1						Ì	ŀ		

Picklist Print

Page 6

Required Date: 3/24/2010

Required Qty: 1.00

Monday, March 08, 2010 10:23:17 AM

Work Order ID: 56758

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09

SS Wearplates & Gaskets

Purchased No JLM

Warehouse

FG

ST

Location

200

Each

Loc Qty

Loc Code

388.0000 50.0000

Start Date: 3/9/2010

Start Qty: 1.00

washer

AN960C10L

	Location
NAS1149C033BR	OFFSHORE
MACAL -	EC

Manufactured

No

113691 100

103585 100 Main Warehouse

> 288 112116 128 112612 160

> > 200

72.0000

Each



Gasket

D3566-13

<u>Warehouse</u>	Loc Qty	Loc Code
Location		
Main Warehouse		
FP /	70	
53461	70	
Main Warehouse		
ST	2	
45717	1	
50265	1	

	11,000	
1	bk 10-3-24	•
	7-	

50. pl. 10-3-24

W/O:		WORK ORDER CHANGES								
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval QC Inspector				
					*					
					e E					
Dord No					_		<u> </u>			

Part No:		PAR #:	Fault Cat	egory:	NC	R: Yes N	o DQA:	Date:	
	Re	Resolution: Disposition:			QA	sed:	Date: _		
NCR:			WORK ORI	DER NON-CONFO	RMANCE	E (NCR)			
		Description of NC		Corrective Action	Section B		Verification	Ammercal	Anneau
DATE	STEP	Section A	Initial	Action Descrip	otion	Sign &	Vernication	Approval	Approve

	STEP	Description of NC		Corrective Action Section B	Verification Approval	A		
DATE		Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector
ı								
								!
				·				

Picklist Print

Page 7

Required Date: 3/24/2010

Required Qty: 1.00

Monday, March 08, 2010 10:23:17 AM

Work Order ID: 56758

D205-634-041

Comments:

Parent Item:

Parent Item Name: Replacement Skidtube

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09

SS Wearplates & Gaskets JLM

Manufactured

200

Each

23.0000 1.0000

Start Date: 3/9/2010

Start Qty: 1.00

Gasket

D3566-5

Warehouse	Loc Oty	Loc Code	
Location			
Main Warehouse			
FP19	19		
55026	7		- 60. 221
55335 🗸	12		J \$10-3-24
Main Warehouse			/
ST	4		
36113	1		
46186	1		
47318	1		<u></u>
51260	1		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _		PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
	Resolution:		Disposition:	QA: N/C Closed:	Date:
NCB.		WC	RK ORDER NON-CONFORMAL	NCE (NCR)	

	WORK ORDER NON-CONFORMANCE (NCR)										
	Description of NC		Corrective Action Section B		Verification	Approval	Annessal				
STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector				
	•										
-											
	STEP	STED Description of NC	STEP Description of NC Section A Initial	STEP Description of NC Section A Initial Action Description	STEP Description of NC Section A Initial Action Description Sign &	STEP Description of NC Section A Initial Action Description Sign & Section C	STEP Description of NC Section A Initial Action Description Sign & Section C Chief Eng				

Picklist Prin		:17 AM								Page 8
Work Order ID:	··· ·					.=				
Parent Item:	D205-634-041									
Parent Item Name:	: Replacemen	t Skidtube		8181 3111 Itakto ottos 11141 3194			s	tart Date:	3/9/2010	Required Date: 3/24/2010
Comments:	IPP Rev P IPP Rev. O	02.08.28□FP was QC5 in 10.02.19 per PAR09-043 06.02.28 Added paperv 07-07-09 SS Wearplate	EC verified work EC		□KJ		\$	Start Qty:	1.00	Required Qty: 1.00
D3566-1		Manufactured	No		200	Each	13.0000	2.0000		
545.16 7			<u>W</u> :	arehouse	<u>L</u>	oc Qty	Loc Code			
				Location _						4
			Ma	in Warehouse	-90				2	_ bil 10-3-24
	•			_	532	8				_ NR 10-5-07
				52512 54480		3				_
				55011		1				_
				55320		3				
			Ma	in Warehouse						
				ST		5				_
				46349 51218		1				_
				51259		3				_
D3564-11		Manufactured	No		200	Each	9.0000	1.0000		<u> </u>
			<u>W</u> :	arehou <u>se</u>	<u>L</u>	oc Qty	Loc Code			
	•			Location						4

 Warehouse
 Loc Oty
 Loc Code

 Location
 JBR-/0-3-24

 Main Warehouse
 7

 55332
 7

 Main Warehouse
 ST

 45823
 1

50112

W/O:		WORK ORDER CHANGES										
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector					

_					L							

Part No:	PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
Resolution:		Disposition:	QA: N/C Closed:	Date:

NCR:		WORK ORDER NON-CONFORMANCE (NCR)										
		Description of NC		Corrective Action Section B				A1				
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector				

Required Date: 3/24/2010

Required Qty: 1.00

"Monday, March 08, 2010 10:23:18 AM

Work Order ID: 56758

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28⊔FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

Manufactured

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Manufactured No

200

Each

33.0000 1.0000

Start Date: 3/9/2010

Start Qty: 1.00

Wearshoe

D3564-13

<u>Warehouse</u>	<u>Lo</u>	c Oty	Loc Code		
Location					
Main Warehouse					
FP17		21			
56285		21			1 Dk 10-3-24.
Main Warehouse					,
ST		12			
45409		2			
46495		10			
	200	Each	18.0000	1.0000	
				1 1880 1881	

Wearshoe

D3564-9

Warehouse	Loc Oty	Loc Code
Location		
Main Warehouse		
FP19	16	
55025	4	
55025 55334	12	
Main Warehouse		
ST	2	

	bl 10-3-24	
1	TVR 10-2-04	•

44659 45825

W/O:			WORK ORDER	CHANGES					
DATE	STEP	PR	OCEDURE CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
							:		
· · · · · ·									
							_		<u> </u>
Part No):	PAR #:	Fault Category:	NCR	: Yes	No DQ	A:	_ Date: _	
	Resolution	:	Disposition:	QA:	N/C C	losed:		Date: _	
NCR:			WORK ORDER NON-COM	FORMANCE	(NC	R)			

CR:		WORK ORDER NON-CONFORMANCE (NCR)										
		Description of NC	Corrective Action Section B				Approval	Approval				
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Chief Eng	QC Inspector				
Ī												
							3					

Picklist Print

Page 10

Required Date: 3/24/2010

Required Qty: 1.00

Monday, March 08, 2010 10:23:18 AM

Work Order ID: 56758

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

D3564-5

Manufactured

200

Each

33.0000

1.0000

Start Date: 3/9/2010

Start Qty: 1.00

Wearshoe

Warehouse	Loc Qty	Loc Code	
Location			
OFFSHORE			
FG	2		
34806	2		
Main Warehouse			
FP19	29		
51925	1		
54772	4		DK10-3-24
55024✔	12		11/0-2-24
55333	12		
Main Warehouse			
ST	2		<u> </u>
45824	1		
47433	1		

W/O:			WORK ORDER	CHANGES				
DATE	STEP	PR	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

					<u>.</u>			
	<u> </u>							
Part No	:	PAR #:	Fault Category:	NCR : Ye	s No DC)A:	Date: _	
	Resolution	:	Disposition:	QA: N/C	Closed:		Date: _	
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC Corrective Action Section B			3	Verification	Annroval	Annroyal		
DATE	STEP	Section A			Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector		

Picklist Print

Monday, March 08, 2010 10:23:18 AM

Work Order ID: 56758

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

D2594-3

Manufactured No

200

Each

508.0000 16.0000

Loc Code

Start Date: 3/9/2010

Start Qty: 1.00

O-Ring, 205 Skidtube

Warehouse	Loc Qty
Location	
Main Warehouse	
FP	495
51613	27
55546	468
Main Warehouse	
ST	13
52562	13

16 BR 10-3-24.

Required Date: 3/24/2010

Required Qty: 1.00

Page 11

W/O:	-		WO	DK UDDED CHVII	GES		·- <u>-</u>			
DATE STEP		WORK ORDER CHANGES PROCEDURE CHANGE				Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
							M-dr.			
Part No	•	PAR #:	Fault Categ	jory:	NCI	R: Yes	No DQ	A:	_ Date: _	
	Resc	olution:	Disposition	ı:	QA: N/C Closed:				Date:	
NCR:			WORK ORDE	R NON-CONFORM	IANCE	(NCR	1)			
DATE	STEP	Description of NC						Verification Ap		Approval
DAIL	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Secti		Chief Eng	QC Inspector
										
	1		1				1		!	ŀ

Picklist Print

Monday, March 08, 2010 10:23:18 AM

Page 12

Required Date: 3/24/2010

Required Qty: 1.00

Work Order ID: 56758

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

07-07-09 SS Wearplates & Gaskets IPP Rev:P JLM

D2594-1 -

Manufactured

No

200

Each

577.0000 16.0000



Start Date: 3/9/2010

Start Qty: 1.00

Plug, 205 Skidtube

Warehouse	Loc Oty	Loc Code
Location		
Main Warehouse		
FP	449	
54008	1	
54643	15	
55002 🗸	433	16. BK 10-3-2H
Main Warehouse		ľ
ST ·	128	
42221	16	
42807	92	
43884	3	
46435	2	
-51527	9	·
51757	6	

Dart Aeros	space Ltd
W/O:	

	•								20
N/O:			W	ORK ORDER CHANG	ES				
DATE STEP		PRO	OCEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector
<u>.</u>									
	An annual state of the state of								
Part No	:	PAR #:	Fault Cate	egory:	_ NCR: Yes	No DQ	A:	Date:	
			Disposition:						
NCR:		,	WORK ORE	DER NON-CONFORMA	NCE (NCF	1)			
DATE	STEP	Description of NC Section A Initial		Corrective Action Section B		Sign & Verific		Approval	Approval
		Section A	Chief Eng	Action Description Chief Eng	Date	Secti	on C	Chief Eng	QC Inspector
···									
·									



7 /L		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHEC	KED,	APPROVED	DRAWING NO. REV. D
<u></u>			D2580 SHEET 1 OF 3
DATE			TITLE SCALE
07.0	02.27		205 SKIDTUBE ASSEMBLY NTS
Α		96.09.16	NEW ISSUE
В		96.12.02	AS MANUFACTURED
С		98.08.26	REDRAWN, INCLUDED DEO 9094/9097
D		07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183



QTY	QTY	Part Number	Description
-041	-045		1
X		D2580-041	SKIDTUBE ASSEMBLY
	Х	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130	INSERT
		or AKS7-1032-130	
		or AKS4-1032-130	
		or AELS-1032-130	
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:

SEE NOTES ON

PAGE 2 FOR D2580-041 AND

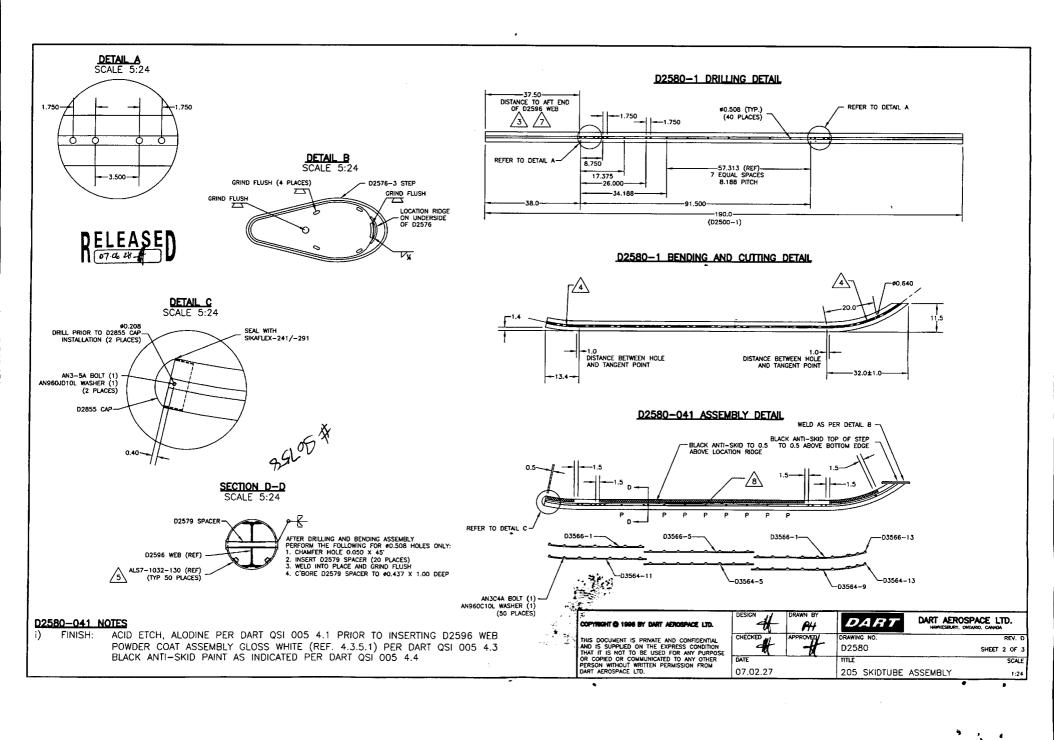
PAGE 3 FOR D2580-045

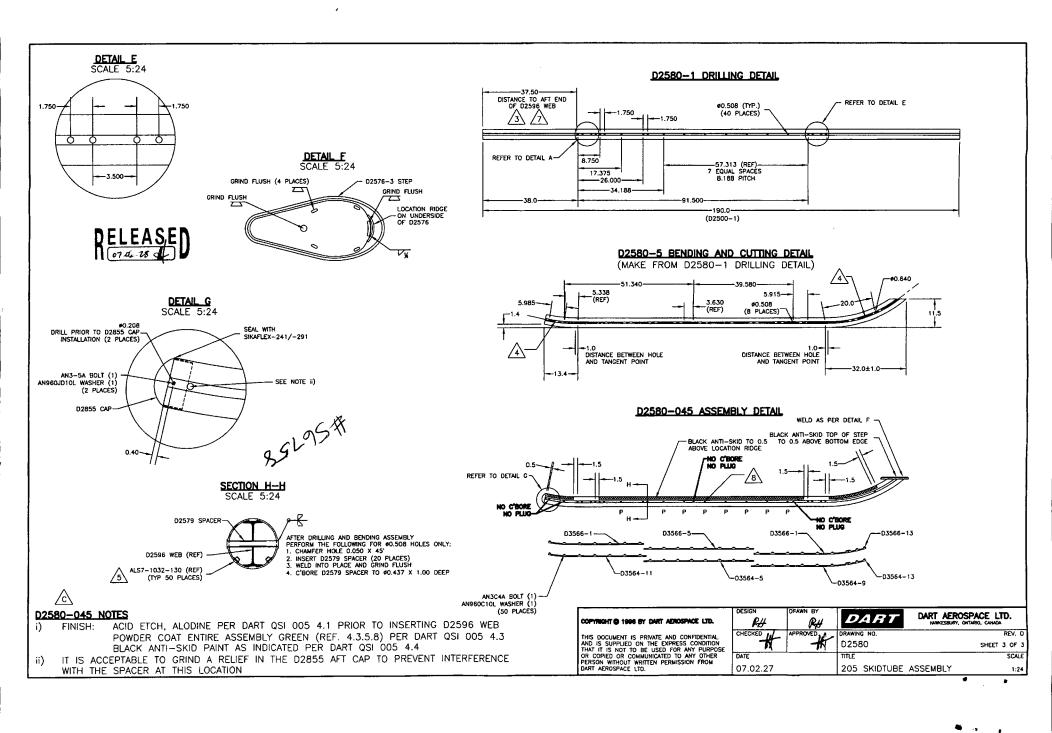
8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

Copyright @ 1996 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

*56-158





NO.	226	
110	max c	

AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Bardan Elliett	
Job number: 56184	
Part number: D205 634.041	
Description: 205 skid tube	
Welding Process: Tig[Mig[]	
Welding Process: Tig[] Mig[] Base materiel: Alaman and a second a second and a second a second and a second	
Current: AC[DC[]	

TEST REQUIREMENTS AND RESULTS

pass[] fail[] pass[] fail[]
pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[]
Date of Test Coupon 10.02.23
Date of Test Coupon 10-02-23

The above named individual is qualified in accordance with AWS D17.1.2001 to weld